

1. A rotary solenoid apparatus comprising:
a rotation shaft,
a regulating means for regulating the rotation range of the rotating shaft,
a permanent magnet fixed to the rotating shaft in a body,
a spring for urging the rotating shaft in the circumferential direction,
a yoke having a pair of stator portions being opposite to the permanent magnet
with a predetermined clearance,
a coil wound on the yoke and
an energization control means for controlling the energization of the coil so that
the coil is selectively excited,
wherein the permanent magnet is magnetized in the radial direction of the
rotation shaft.

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